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AUTHOR Lopez, David E.

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ABSTRACT

The national language patterns of Hispanics are assessed across three generations using data from the 1979 Current Population Survey. The apparently high rates of Spanish use and maintenance found in 1979 and 1980 are consistent with earlier sources that report much lower rates because of the rewording of the language use questions in the 1979 survey. The 1979 survey uses questions that yield skewed results by greatly overestimating the proportion of the population for whom the ethnic language is their dominant or most frequently used language. Correcting for this bias requires the development of a three-category scale which corresponds directly to levels of language maintenance. Using this scale, a three-generational analysis was performed. There were distinct shifts from first to second and from second to third generations. One notable result was that Spanish use among third generation Hispanics is markedly higher than what is found for other immigrant groups. The retention of Spanish is particularly strong among Mexican Americans. There was also a clear association between using Spanish and low socioeconomic status. There was a secondary trend, revealed by multiple discriminant function analysis, in which high status and maintaining Spanish while also gaining competence in English is distinguished from either monolingual pattern. (Author/RW)

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THE MAINTENANCE OF SPANISH OVER THREE GENERATIONS IN THE UNITED STATES

David E. Lopez

October, 1982

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ABSTRACT

THE MAINTENANCE OF SPANISH OVER THREE GENERATIONS IN THE UNITED STATES

David E. Lopez

Previous studies based on limited samples have indicated the importance of viewing language shift among Hispanics as a three generational process, in contrast to the two generational model that seems to be adequate for most other immigrant language minorities in the United States. The November, 1979 Current Population Survey appears to show that language maintenance rates for Hispanics are much higher than previous studies indicated; however, that is an artifact of question wording. In the last decade, there may be a trend for higher rates of apparent Spanish use among Hispanics, but comparisons of the 1979 results with those obtained in 1975 and 1976 show that only about 45-50% of adult Hispanics usually speak Spanish, not the 80-90% that the 1979 and 1980 data imply. Whatever the absolute rates, the differences among the three generations are clear: Hispanics shift to English, but at rates that are slower than those of other contemporary immigrant groups, and probably slower than European immigrant groups of the past. The retention of Spanish is particularly strong among Mexican-Americans; other Hispanics may well follow the traditional "immigrant" pattern. The correlates of maintaining Spanish generally indicate that continuing to use Spanish is associated with lower socioeconomic status. However, multiple discriminant function analysis reveals that, while this is the general pattern, there is also a secondary trend in which high status and maintaining Spanish while also gaining competence in English is distinguished from either monolingual pattern.

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I. INTRODUCTION

This paper has two goals: (1) To assess, for the first time on the national level, the language patterns of Hispanics across three generations, and (2) to introduce the newly available November, 1979 Current Population Survey as a source of information about language and ethnicity in the United States today. The three generational analysis is the heart of the paper, but it cannot be undertaken without the rather lengthy methodological discussion (Chapters II and III) that preceeds it. This is so because the November 1979 CPS used a language question that was quite unlike any that came before. This question produced apparent rates of Spanish use far above those suggested by previous national survey results. The issues of the meaning of this new question and its comparability with previous results are not just academic, for the same question was used in the 1980 Census, the results of which will affect social policy and, indeed, define social reality for the next decade. When new results are publicized, they become the current "facts" about language use in the United States. But like so many other "facts" about the distribution of qualities and behaviors in our society that are gleaned from censuses and surveys, language use and background are inherently subjective, and, to a considerable degree, a function of how questions are asked. We are about to face a new set of "facts" about language use that will emerge from the 1980 Census. It is well that we understand how these facts relate to previously acquired facts, and how they relate to that elusive "reality" that most of us believe is out there, despite indications to the contrary.

If one were to judge the facts of language use and maintenance in the United Sates from the 1979 survey alone, the conclusion would be that Hispanics and most Asian immigrants are tenaciously maintaining their language, on a scale unknown among earlier immigrants from Europe. Among adult Hispanics, for example, nine out of ten grew up in Spanish-speaking homes, and 80% still speak Spanish at home. These are

the sort of numbers that are easily used to make political points, often points at odds with each other. Those devoted to immigration restriction and cultural homegeneity can point to these figures as proof that current immigration trends are leading to a dangerous separatism among recent arrivals, one at odds with the American tradition of pluralistic assimilation and acculturation. The further evidence that a majority of the children of Hispanic immigrants, and even the majority of the children of immigrants' children, continue to speak Spanish at home serves to further confirm what they regard as an unhealthy separatist trend. It is an easy next step to link the modest level of socioeconimic attainment among Hispanics to their language encapsulation and their apparent stubborn unwillingness to adopt English with the eagerness that we all "know" previous immigrant groups did. Studies of the causal relation between language maintenance and socioeconomic attainments are fraught with difficulties, but there is at least a correlation of both Spanish language background and continued use with lower levels of educational, occupational and income attainment.

These same facts are also the basis of quite a different argument. the Americanization approach is implicitly based on a human capital analysis, which views individuals as autonomous actors in an essentially free market. Hispanics do poorly because they fail to acquire the human capital (education, essentially) needed to compete in the economic market-place, and their continued use of Spanish is bad because it prohibits them from acquiring the English competency that is fundamental to competitive success. Quite different is the interpretation in terms of discrimination, both direct and "institutional." Language activists will look at these 1979 figures (and the even more impressive 1980 figures that will follow) and argue that Spanish, is, afterall, maintained from generation to generation in the United States, not just in the hills of New Mexico but among the majority of Hispanics who are third generation or more. This is sure to be used in persuasive arguments about the necessity for Spanish

language services in schools and other public settings, including elections. After all, if two-thirds of all native-born adult Hispanics continue to speak Spanish, then some accommodation must be made for them. This accomodation includes multilingualism in voting and public facilities, but it also includes doing something for younger generations, during their schooling years. Bilingual elections and other services to adults have been points of public controversy; however, these have been minor in comparison with the struggle surrounding bilingual education. The 1979-80 indications of continued use of Spanish and other languages by children at home (excluded here but nearly as high as the figures for adults) would seem to be strong evidence that <u>something</u> should be done, whether it be ESL and Americanization, or any of the forms that bilingual education takes. People will support their own preferred program alternative, based on their beliefs and their interests, but, most certainly, the big numbers flowing from the 1979 and 1980 sources will be frequently quoted in the next few years in support of one perspective or the other.

The truth is that the 1979 data do not really tell us anything new about language use. If the individual language use question in 1979 (and 1980) produces different and markedly higher rates than previously obtained, it is because such a question was never asked before. Spanish is without a doubt the major example of ethnic language maintenance in the United States today. Various monographs and articles attest to the relative tenacity of Spanish, though the debate continues over the degree of Spanish maintenance, its causes and its consequences (Fishman et al., 1966; Grebler, Moore & Guzman, 1970, pp. 424-432; Skrabanek, 1970; Thompson, 1971; Lopez, 1976, Lopez, 1978; Veltman, 1980b, 1981a; Lopez, July 1982). The consensus of the best recent work is that Hispanics, in particular Mexican-Americans in Texas and the Southwest, do indeed have higher rates of ethnic mother tongue maintenance than do European immigrant stocks earlier in this century or the Asians who constitute the other major immigrant stock today. But maintaining Spanish beyond the second generation is a question of a

significant minority, not majority, pattern among Hispanics. The principal remaining issue is the size of this minority pattern, its socioeconomic correlates, and how long it lasts. This paper addresses itself to all three issues, and if it does not resolve any of them, at least it takes us farther than we have been before.

II. THE 1979 LANGUAGE DATA AND COMPARISONS WITH EARLIER SOURCES

The November 1979 Current Population Survey contained the new language and ancestry questions that were developed for the 1980 Census. The new language question asked about current language, not mother tongue, as in 1970 and previous censuses. There was considerable debate surrounding this new question, but all interests agreed that some indication of current language use was more appropriate for policy formation. The new open-ended ancestry question, which replaces questions about parents' birthplace, is apparently intended to provide a geneologically "deeper" and more subjective approach to ancestry. The point of including these questions in the 1979 CPS was not really to try them out; the results for 1979 would be available only long after the 1980 Census field work was completed. Rather, the idea was to use the 1979 CPS to "link" the 1980 results with previous data sets, primarily the 1970 Census. Thus, the 1979 questionnaire also contained a mother tongue question and questions about where one's parents were born. Given the issues raised in Chapters II and III of this paper, it is questionable just how effective this "linkage" will ever be. For those interested in language and ethnicity, the great value of the 1979 data set will probably lie ultimately in the rather complete socioeconomic and employment information it contains (as the source of regular unemployment data, it contains excellent information about searching for jobs), and also for the presence of those rare questions about parents' birthplace.

As of this writing, no ancestry information has been released from the 1980 Census, but preliminary findings for November 1979 are available (Bureau of the Census, March, 1982). Some of the figures are odd, to say the least. For example, the ancestry question yielded only 16 million "Afro-Americans," in contrast to 26 million blacks counted in the Census. And it counted 10 million "American Indians" . . . the 1980 Census count was 1.5 million, and even that was startlingly high in comparison to previous figures.

The 1979 ancestry counts for Hispanics and the Asian language minorities do not seem to be so far off. Unfortunately, exact comparisons are impossible for all but the Hispanics, since theirs is the only ethnic origin identified, and since race is coded only black, white and other. (Race is more fully specified in the 1980 Census.) Of the Spanish origin population, 96% of the adults 18-64 indicated some sort of Spanish ancestry as their primary ancestry. All students of ethnicity will be intrigued by the information about multiple ancestry, though the form of the question will make these data difficult to interpret. The low rate of write-ins for blacks ("Afro-Americans") and the idiosyncratic reaction to the possibility of specifying multiple ancestry should, in particular, produce concern. It seems likely that educational level may have been a major determinant of whether or not people answered the question at all (18% provided no ancestry information), and whether they indicated multiple ancestries.

The Census Bureau hopes that this new concept of ancestry will yield better information about the backgrounds of that large majority of Americans who have no strong racial or ethnic tie. We wish them well, but we also wonder just what it will all mean sociologically. Of course, every American has an ancestry, mostly immigrant. But not every American has an ethnicity in the sense of a strong identity that is recognized and acted upon by both in-group members and outsiders. The racial minorities, Jews, Hispanics, Native Americans and a few other small groups do, and it is to be hoped that the geneological accounting reflected in the Census Bureau's new approach to ancestry will not lead to the neglect of genuine ethnicity in American life today.

But it is the language questions that most concern us. We come to the language data armed with specified hypotheses about how question

wording and method (census vs. survey) affect responses to language questions (see Lopez, 1982). The essential issues are:

1. Censuses seem to produce higher non-English responses to mother tongue and current language questions than do surveys. This is true even when the survey sample and weighting procedures are adjusted to the census, apparently because people are more open to self-administered questionnaires than they are to surveys,

2. Questions specifying languages that are "usually" or "often" spoken elicit smaller responses than those without frequency indicated. This is true both for questions asking the most common language used and the second language used.

3. Second language questions specifying a domain of use (e.g., "at home") produce smaller responses than those that do not, since asking, "Does X speak any other language?" can be interpreted as a competence question, devoid of any implication of use. This does not arise for questions about the most common language since they are never worded so vaguely. Of all domains, "at home" yields the highest non-English rates, however, since it is there that people use their ethnic tongues most.

4. Inclusive questions asking what language other than English produce higher responses, since they can be interpreted as "in addition to English."

The 1979 and 1980 language use question ("Does this person speak a language other than English at home?") is an odd combination of several previous ones. It is individual, domain specific and inclusive, with no indication of frequency, though the domain specification does imply that the language actually is spoken, not just known. The domain specified is the one in which people are most likely to speak their ethnic language, if they speak it at all. Its most important characteristic is the "other than English" phrasing, which has always produced relatively high rates of non-English responses. The 1979 mother tongue question is similarly phrased and can be expected to produce larger rates than the more restrictive questions used in other recent surveys.

These various considerations led to the following predictions:

1. The non-English at home rates will be higher for 1980 than for 1979, due to the survey/census effect;

2. Both non-English language use and the mother tongue rates in 1979 will be higher than 1976 due to question wording. In contrast to the inclusive 1979 questions, the 1976 question specified "usual" current and mother tongue.

Table II.1 provides the mother tongue and current language rates from all national data sets containing language questions since 1969. The comparisons are limited to adult Hispanics, though the uneven availability of data obliges us to compare slightly different age groups and, in some cases, provide estimates based on Hispanic and Spanish language totals, not the language subset of the ethnic group. Two historical factors cloud comparisons, and the farther apart the years are, the cloudier it gets. First, we know that a large part of the growth of the Hispanic population since 1970 has been due to immigration, and such growth will surely contribute to the Spanish language rates. However, the demography of Hispanics in the United States is such a murky and controversial area that there is no sound way to untangle the components of immigration-emigration, natural increase, changed identity and error. Attempts to do this untangling indicate that roughly one-half of the growth of the Hispanic population in the last ten years has been due to immigration. In the 1979 survey, one-fifth of the Hispanic immigrants indicated that they had arrived in the United States in the preceeding four years.

TABLE 11.1

Mother Tongue and Language Use Rates Among Hispanic Adults: 1969, 1970, 1975, 1976, 1979 and 1980 (Percent Spanish of Total Spanish Origin Group)

	Percent Spanish Mother Tongue	Percent Spanish Speaking
November 1969 CPS[1]	72% (OTE[6])	50% (usual)
1970 Decennial Census[2]	80% ≠ (OTE)	--
1975 Spring CPS 14+[3]	81% (usual)	44% (usual)
1976 SIE 18+[4]	82% (usual)	47% (usual)
Nov. 1979 CPS (18-64)[5]	93% (OTE)	81% (OTE)
1980 Census 18+	--	90% ≠ (OTE)

Notes: [1] 18+ from published sources.

[2] Estimate based on rate for all ages (78%).

[3] 14+ from Waggoner, 1976, p. 9.

[4] 18+ (18-64) would be 1-2% lower.

[5] Estimate based on ratio of Spanish use to total Spanish origin adult population.

[6] OTE = Other than English.

The second complicating factor is the possibility that there may be a genuine historical trend for Hispanics to increasingly state that they speak or spoke Spanish. The idea is that with the increase in ethnic consciousness and pride comes greater willingness to "admit" that one speaks or spoke la lengua ('the language'). The increase in Spanish mother tongue rates from 1969-70 to 1979 is consistent with this argument, but the influx of immigrants over the decade, along with a host of methodological issues that make comparisons between 1969-70 and 1979 tricky, render this idea no more than a possibility. Certainly, the attitude and behavioral change implied by the growing identity hypothesis cannot be a major factor between 1976 and 1979. Therefore, while we present earlier results, we suggest that the comparisons between 1979 and 1976 are the most instructive. Fortunately, the 1976 Survey of Income and Education is the most comprehensive national source of language data ever collected.

The principal conclusion to be drawn from Table II.1 is that the predictions are borne out. The Spanish at home rate in 1980 is considerably higher than in 1979. And the 1970 mother tongue rate is above the 1969 survey result. Refinements in the numbers used may result in minor changes, but the gaps will still be large. The 1979 mother tongue and individual language rates are also considerably higher than the 1975 and 1976 rates, presumably due to the hypothesized effect of question wording. As discussed above, it is difficult to interpret the mother tongue changes from 1969-70 to 1979. The questions were similarly worded, so that the changes must be due to the several other factors discussed above. However, the mother tongue differences from 1975-76 to 1979 would seem to be explained best by changed question wording. Wording also seems the best explanation of the increase in the apparent rate of Spanish use from 44-47% to 81% in 1979 (the census vs. survey effect best explains the 1979/1980 differential).

The point of all this is that the 1979 and 1980 data do not provide any great surprises and should not be taken as indications of change (other than that due to immigration). In particular, they should not be taken as any more correct than the previous numbers, only different. There are no "correct" numbers about language use and background, for these phenomena are inherently subjective and sensitive to question wording.

If question wording largely explains the apparently different results for Spanish in 1976 and 1979, then the same should hold for other languages. The lack of ethnic identifiers other than "ancestry" in 1979 makes it difficult to compare the language patterns of equivalent groups in the two surveys, but rough approximations are possible and are given in Table II.2. The 1976 data come from Lopez (1982); the 1979 rates have been calculated from the one Census Bureau publication reporting overall ancestry and language data from 1979 (Bureau of the Census, March, 1982). (The 1979 Spanish rates are figured in the same way as those of the other groups, for comparability. Therefore, they are slightly different from the rates found elsewhere in this paper.)

Note first that in all cases the 1979 mother tongue rates are higher, considerably so for all groups except the Chinese and Filipinos, which already had quite high ethnic mother tongue rates. But the most instructive comparisons are for current language. In 1976 we could divide each ethnic group into four language use categories: Ethnic language only (E), primarily ethnic language but also English (E/e), primarily English but also ethnic language (E/e), and English only (e). The sum of the first two categories constitutes the "usually" ethnic language category, and in every comparison this category is much below the rate of ethnic language "at home" in 1979. But note that there is a general correspondence between all three levels of ethnic language use, including using it as a supplement to English, and the ethnic language at home rate. The variation is only a

TABLE 11.2

Language Use in 1976 and 1979: Comparisons for Spanish, Portuguese, Japanese, Chinese and Filipino Adults 18 and Over

	CURRENT LANGUAGE 1976				1979	ETHNIC MOTHER TONGUE	
	$\bar{E}$ only	$\bar{E}$/e	E/$\bar{e}$	E only	$\bar{E}$	1976	1979
Spanish	21%	26%	32%	21%	82%	82%	90%
		79%					
Portuguese	16%	8%	18%	58%	38%	58%	77%
		42%					
Japanese	8%	9%	24%	59%	43%	60%	81%
		41%					
Chinese	25%	28%	28%	19%	76%	87%	89%
		81%					
Filipino	6%	25%	39%	30%	77%	84%	89%
		70%					

Sources: 1976 Survey of Income and Education: U.S. Bureau of the Census, March, 1982.

Note: 1. "E" is English and "$\bar{E}$" is not English. See text for fuller discussion.

few percent in each case, with the Filipino gap of 7% being the greatest. The implication is obvious and useful: It seems that the 1979 ethnic language question did not merely produce generally higher apparent rates of non-English use; rather, the question tapped the sum of all levels of ethnic language use as defined in 1976. "Other than English," it would seem, really was interpreted as 'in addition to English.'

But what do we know about the validity of the four categories that derive from the 1970 language questions? As it happens, these categories were the basis of a recent and comprehensive monograph on language use patterns among Hispanics and seven other language minorities in the United States (Lopez, July 1982). That study found that the language variable using these categories correlated very strongly with factors like nativity and mother tongue. Table II.3 presents language use by nativity and mother tongue for Hispanic adults in 1976. Note the regular pattern of association from the most Spanish group, the Spanish mother tongue immigrants, to the least, the English mother tongue natives. Only 1% of the English-raised natives say that Spanish is their usual language. This rate rises to 37% for natives brought up in Spanish, and 72% for immigrants raised in Spanish (even the odd English-raised immigrant category, which is very small, is consistent with the general pattern). The proportion of those using only English goes from a low of 3% for the Spanish-raised immigrants to a high of 78% for English-raised natives. The meaning of each category may be open to debate, but that the four constitute a clear continuum is not.

TABLE 11.3

Language Use by Nativity and Mother Tongue:
Hispanic Adults 18+, 1976 (Numbers in Thousands)

Birthplace	Mother Tongue	CURRENT LANGUAGE USE Spanish Only	Spanish/ English	English/ Spanish	English Only
United States	Spanish (N = 2,112)	8%	29%	49%	14%
	English (N = 1,069)	--	1%	21%	78%
Foreign	Spanish (N = 2,934)	38%	34%	24%	3%
	English (N = 59)	2%	3%	34%	61%

Source: 1976 Survey of Income and Education

III. METHODOLOGICAL ISSUES

Language Use and Ability

We know that the category "Spanish at home" in the 1979 data is roughly equivalent to the three categories "Spanish Only," "Usually Spanish but also English" and "Usually English but also Spanish" in the 1976 Survey of Income and Education (SIE). Unfortunately, there is no easy way to attain that level of detail in the 1979 data. The SIE contains questions about relational and contextual language use, as well as those on overall frequency. But the 1979 CPS asks only the one current language use question. We are, then, obliged to rely on other sorts of questions about language, and in the 1979 CPS there are only two: Mother tongue and English ability. The first possibility that suggests itself is a combination of current and upbringing language. Hypothetically, it would be reasonable to distinguish three groups:

1. English monolinguals, i.e., those who were brought up in English and speak only English;

2. Spanish monolinguals, i.e., those whose mother tongue and current language are both Spanish;

3. Bilinguals, i.e., those who were raised in Spanish but now speak predominantly English.

The difficulty with deriving such categories from the 1979 data resides in the extremely skewed distribution on both the mother tongue and current home language questions: 93% of the adult Hispanics are Spanish in mother tongue, and 82% indicate that they speak Spanish at home. In 1976, 18% of the adult Hispanics said their usual language when growing up was English. But the 1979 question implies English only and the rate drops to 7%. Table III.1 compares the relation between mother tongue and current language for the two surveys. The broader concept of English mother tongue in 1976 should produce somewhat higher rates of current Spanish use, and the left side of the table shows that to be the case. In like manner, the narrower

TABLE III.1

Mother Tongue and Current Language in 1976 and 1979: Hispanic Adults*

	English Mother Tongue				Spanish Mother Tongue			
	1976 (18%)		1979 (7%)		1976 (82%)		1979 (93%)	
Current Language								
English Only =	77%		86%		7%		13%	
English/ Spanish	22%	23%	14%		35%	93%	87%	
Spanish/ English	1%				32%			
Spanish Only =	--				26%			
100% =	(1,129,000)		(427,000)		(5,008,000)		(5,393,000)	

*The 1976 rates are for all those 18 and over; the 1979 rates include only those 18-64. However, including those over 64 changes the language rates only 1-2% towards Spanish. In both surveys 48% of the Hispanic adults indicated that they were born abroad.

definition of Spanish mother tongue in 1976 should produce lower rates of using English, and the right side of the table shows that to be the case. It is worth noting that the 1976 pairing would seem to be more accurate. Some reverse language shift, from English to Spanish, is to be expected in any survey, though it probably represents "noise" in the data more than any genuine trend. Therefore, the smaller this rate, the more accurate the questions would appear to be. In 1976, only 1% of the English mother tongue individuals say that they now usually speak Spanish. In the 1979 data the rate is 14%. These comparisons are based on the matched phrasing in each study, "usual" in 1976 and "other than English" in 1979.

Quite aside from the "reverse language shift" issue discussed above, which involves only about 1% of the <u>total</u> Hispanic adult sample even in 1979, the combination of mother tongue and current language produces an unsatisfactory set of categories in 1979 (though it would serve in 1976):

	1976	1979
English Monolinguals	18%	6%
Spanish Upbringing English Now	35%	12%
Spanish Upbringing and Now	47%	81%

The combination of mother tongue and current language in 1979 does not allow one to break down that one large category which we know includes considerable diversity in language behavior. The only alternative, then, is to rely on self-reported ability in English. The general difficulties with such questions are well-known. In data sets like the 1976 Survey of Income and Education or the 1979 Current Population Survey it is easy to show that many people over-report on their ability in English and especially on the ability of their children. In the one study where reports of English ability were

combined with actual tests of English ability (however questionable the test may have been), the Children's English and Services Study (CESS) (O'Malley, 1981), the two characteristics were weakly related. It was only at the high end of the scale of reported English ability that there was any clear association with test scores.

However, it does not follow that reported ability cannot be used as an indicator of how people would answer questions about language use. The validity of language use and language ability questions, as well as the test referred to above, are not the issue. What is needed are reliable questions whose categories tap the language use diversity known to exist among adult Hispanics. In 1976, two questions about ability in English were asked, one for speaking and the other for understanding. The results were similar, and in 1979 a combined "speak and understand" question was used. The questions were similarly worded, though the 1976 question had five response alternatives, while the 1979 question had only four. The questions were also asked of similar sub-samples, essentially those who had indicated that they spoke a language other than English. If the 1976 and 1979 English ability results are similar, and if there is a strong relation between language use and English ability in 1976, then it follows that English ability can be used as an indicator of language use in 1979.

The first step is to compare the distributions of answers to this question, as shown in Table III.2. In both surveys, 19% of the Hispanics 18-64 were not asked the question. In 1979 this was determined simply by whether or not people indicated that they spoke only English at home. In 1976 (when the English-only language use category was 22% for Hispanics 18-64, in comparison to the 19% in 1979) people were asked the English ability question if they had Spanish mother tongues, whether or not they used Spanish to any degree currently. This adds slightly to the number of people responding to the question--about 3% more. It also probably accounts for the slightly higher rates of English competence reported in 1976, for that added 3%

are likely to consider themselves quite proficient in English. Bearing this in mind, the distributions of English ability in the two surveys are quite close, particularly when grouped as in Table III.2.

These similar results suggest that, whatever they may be measuring, English speaking ability questions are reliable from data set to data set. Of course, we do not actually know that the same people would respond in the same way in two surveys three years apart; these are independent samples. Still, it seems fair to take these similar distributions as indicators of the question's reliability. Also included in Table III-2 are the language use frequencies. The correspondence between the language use and English ability categories in 1976 is by no means perfect, but it does suggest that one might roughly stand for the other.

TABLE III.2

Language Use and English Ability: Hispanic Adults Age 18-64 in 1976 and 1979

1976					1979				
Individual Language		English Speaking Ability			Language at Home		English Ability		
Spanish Only	19%	None	5%	23%	Spanish	81%	Poor	9%	27%
		Few Words	10%				Not Well	18%	
Spanish/English	26%	Not Well	8%				Well	18%	
English/Spanish	33%	Well	17%		English Only	19%	Very Well	36%	55%
		Very Well	41%	60%			Not Asked*	19%	
English Only	22%	Not Asked*	19%						
	100% = 5,780,000					100% = 6,003,000			

Source: 1976 Survey of Income and Education

Source: November, 1979 Current Population Survey

*In 1976 the English ability question was not asked of those who indicated only English as their mother tongue and current individual and home language. In 1979 it was not asked of those who indicated that they spoke only English at home.

The next step is to examine the relation between reported English ability and language use in the 1976 data. In Table III.3 these two measures are cross-tabulated for Hispanic adults. The results are impressive. Eighty-six percent of the English/Spanish bilinguals say they speak English "very well," compared to 42% of the Spanish/English bilinguals and only 2% of those who use only Spanish on a regular basis. When the categories "well" and "very well" are combined, the results are, respectively, 99%, 80% and 11%. Thus, the relation is strong, but by no means perfect. The two outside categories are very clearly differentiated, while the middle category (Spanish/English) is somewhat more spread out. (Those who spoke only English--the logical end category--were not asked the question, but in view of the results for the English/Spanish bilinguals we can assume that substantially all would have indicated that they speak English very well.)

TABLE III.3

English Speaking Ability by Individual Language: Hispanic Adults 18-64, 1976 (Numbers in Thousands)

	English Speaking Ability						
Individual Language	Very Well	Well	Not Well	Few Words	None	100% =	
Spanish Only	2%	9%	18%	44%	27%	(1062)	18%
Spanish/English	42%	38%	15%	5%	--	(1505)	26%
English/Spanish	86%	13%	1%	--	--	(1907)	33%
English Only	(100%)		-not asked-			(1306)	23%
Total	60%	17%	8%	10%	5%	(5780)	100%

Source: 1976 Survey of Income and Education

There is no reason to expect that these two measures should be perfectly related. Taking them on face value (the best way to approach survey question, unless one has a good reason to do otherwise), they are measuring qualities that are correlated but not necessarily identical. People who speak only Spanish frequently cannot be expected to be perfectly competent in English, and the low rates of responding well and, especially, very well, indicates that for them the two measures do amount to almost the same thing. If we had information on reported English ability from the anglophones, then surely their rates would be at least as high as the rates for Spanish-only speakers are low. It would also be nice to have information about ability in Spanish. The results for the bilinguals make sense, but raise scaling difficulties. Those who usually speak English, but also continue using Spanish as a supplementary language, overwhelmingly say that they speak English very well (86%) or well (13%). The Spanish/English group is, however, split rather evenly between very well and well; together these two categories make up 80% of the total.

What cutting points should we employ when using English ability to divide up the Spanish at home population in 1979? On the face of it, the logical dividing point is between "well" and "not well." This is the cutting point used by Veltman (1981a) in his analysis of the 1976 data. For Hispanic adults the resulting categories would then be:

	1976	1979
English only	19%	19%
Spanish/English	58%	54%
Spanish	23%	27%

Any division is arbitrary, of course, and in terms of both face validity and even of distribution, this does not seem to be a bad one. The problem is that evidence from previous studies (the SIE and the CESS) as well as internal evidence in this data set suggest that people

tend to overstate their ability in English. It may well be that "well" plus "very well" is an accurate gauge of basic English competence by some measure. However, we want to use English ability as a surrogate for English language use, and for that, the 1976 results suggest that the cut be made between "very well" and "well."

Table III.4 presents three alternatives. If "very well" and "well" are combined (Alternative A), then the three levels of Spanish use split neatly into two: Those who speak English very well or well, and those who do not. Only 11% of the Spanish-only speakers fall into the top category, compared to 80% and 99% respectively, of the Spanish/English and English/Spanish groups. The difficulty with this split is that we want to distinguish between the two sorts of bilingualism, according to language dominance. Putting the cutting point between "well" and "not well" produces the lowest proportion of incorrectly classified cases, but it obliges us to group the two bilingual cases gainst the monolingual Spanish one. On the other hand, if we put the cutting point between "very well" and "well" (Alternative B), then we increase the number of cases misclassified, mostly from the Spanish/English group. There is, of course, a third alternative: To actually use three categories of English ability (Alternative C). Doing so would yield the same number of categories as the 1976 language use question (after adding the English only category), but it would also considerably increase the proportion of incorrectly classified cases, especially in the middle category, which is reduced to 38% correctly classified cases.

Judging purely in terms of the best proportions classified, the first dichotomous cutting division is preferred (Alternative A). But the classifications are not the ones we want. The trichotomous alternative (Alternative C) has the advantage of providing the widest spread for correctional analysis. However, we decided to use the second dichotomous alternative (Alternative B) both because its rate of correct classification is only marginally below the best alternative

and, more importantly, because its categories correspond more to the usual language concept we desire. Veltman used the equivalent of our Alternative A in developing categories for analyzing the 1976 data. This means that he was, in effect, distinguishing between bilingualism and Spanish monolingualism.

TABLE III.4

Using English Ability as an Indicator of Language Use:
The Results of Three Cutting Point Alternatives
in the 1976 Data: Hispanic Adults, 18-64

	Grouping	Correctly Classified	Incorrectly Classified
Alternative A: Combining Very Well and Well vs. All Other			
I	Spanish Only	89%	11%
II	Spanish/English	80%	20%
	English/Spanish	99%	1%
Alternative B: Very Well vs. All Other			
I	Spanish Only	98%	2%
	Spanish/English	58%	42%
II	English/Spanish	86%	14%
Alternative C: Very Well vs. Well vs. All Other			
I	Spanish Only	89%	11%
II	Spanish/English	38%	62%
III	English/Spanish	86%	14%

As a further check on the usefulness of using English ability as a surrogate for language use, we compared the relation between English ability and variables known to be related to language use: Generation and mother tongue. This analysis is carried out using only the 1979 data set. The results are found in Table III.5. Those who were "not asked" said they they spoke only English at home; we can take this category as equivalent to "very well." Bearing this in mind, there are strong and clear relations between English ability, generation and mother tongue. The small size of the English mother tongue groups in the first and second generations make for difficult interpretation, but there is no ambiguity in the third generation: All those of English mother tongue either were not asked the question or indicated that they spoke English very well. The association with mother tongue is steady across generations. There is also a clear association between generation and English ability, even when mother tongue is controlled. The big gap is between the first and the subsequent generations, whether judged in terms of percent "very well" or that category combined with "well."

TABLE III.5

English Ability by Mother Tongue and Generation: Hispanic Adults 18-64 in the United States, November, 1979 (Numbers in Thousands)

Mother Tongue	English Ability: Not Asked	Very Well	Well	Not Well	None	100% =
First Generation						
Spanish	4%	22%	22%	33%	19%	(2788)
English	48%	21%	5%	11%	15%	(34)
Second Generation						
Spanish	17%	53%	17%	11%	2%	(757)
English	49%	41%	10%	--	--	(19)
Third Generation						
Spanish	26%	53%	17%	4%	--	(1349)
English	91%	9%	--	--	--	(315)

Source: November, 1979 Current Population Survey

In summary, internal evidence from both the 1976 and 1979 surveys, as well as reliability of the English ability question from one study to the other, all support the use of English ability as an indicator of language use. In combination with the language at home question it produces the following basic language use categories used in the balance of this paper:

	1979	
English only	19%	English only
Spanish, speaks English very well	36%	English/Spanish
Spanish, does not speak English very well	45%	Spanish/English and Spanish only

The labels to the left of the percentages are used in the tables and much of the text that follows. Those to the right derive from the analysis of the 1976 results, and how they relate to the 1979 findings. Tney will be used as more convenient alternatives to the awkward labels to the left. It must be understood that they are based on the correspondences in Tables III.2 through III.4, and are not literally correct.

IV. SAMPLE RESTRICTIONS

This paper is confined to Hispanics, in part because they represent the group with the most pressing language issues requiring policy resolution. Various previous works have demonstrated that Hispanics constitute by far the largest and, save for Navajo, the most retentive language minority in the United States (Lopez, 1978; Veltman, 1981a; Lopez, July 1982). But there are also practical considerations. For reasons known only to the Current Population Survey branch of the Census Bureau, the 1979 data set does not include the full range of ethnic and racial identifiers that have previously been available to establish identities that correspond to sociologically meaningful ethnic groupings. Race is a matter of black, white and other. And ethnicity/origin, while nicely broken down for Hispanic subgroups, is not recorded for others. Instead, we have only the new and untested ancestry question discussed in chapter 2. It will be several years before we have made sense of this new approach to ethnicity. By that time, the Census Bureau will surely have gone on to yet another approach to ethnicity.

The choice of adults is based on both theoretical and methodological considerations. The relation between aging and language shift is a complex issue, one which can be only partially resolved with cross-sectional data. Most work from Canadian and U.S. sources agree that, for the native-born, language use and ability are quite stable after about the age of 20 and it is fairly stable several years before (Veltman, 1981a, pp. 34-45). An equally compelling reason to limit this analysis to adults is that we have no information about the language background of children under 1.4. We lack any direct information about the child's mother tongue or the usual language spoken in his household currently. Only the child's current language at home is easily available. In a subsequent analysis we hope to extend our multigenerational analysis to children by combining information about the children and their parents. But this poses both

technical (file merging) and interpretative (the meaning of language variation from parent to child at different child age levels) difficulties. It needs to be done, but only after we have a firm grip on the situation for adults. We have chosen the 18-64 age band because it avoids issues connected with the very young and the very old, and because it neatly corresponds to the age bands ordinarily used by the Census Bureau and others in surveys and reports.

In this analysis we have made two further restrictions designed to highlight the generational contrasts: We have limited the "first generation" to those who came to the United States when they were 15 or older, and the second and third generational groups are composed only of those whose both parents were born either abroad or in the United States, respectively. These two restrictions do not need elaborate justification, but they do raise some interesting issues that are worth exploring.

Merely being born in another country has little sociological significance; what is important is where one grew up and went to school. The children of immigrants who, while born abroad, were actually raised predominantly in the United States might better be considered second or perhaps a 'first and a half' generation. To remove their confounding affect, we excluded from our first generation population all those who were under 15 when they arrived in the United States. The choice of cutting point was somewhat arbitrary; age five would have distinguished people according to whether or not they could have been much exposed to English while acquiring their first language. Age ten would have separated people according to the country (and usually the language) of their initial schooling. But the preschool children of recent Hispanic immigrants are exposed to environments that are overwhelmingly Spanish in any case. It was decided to extend the cutting point up to 15 because people arriving after that age are usually fully grounded in whatever language or languages they spoke in their home country, and learning English for them will be the difficult

process that it is for most adults to learn a new language. Furthermore, learning English will not be at the expense of Spanish, as it often is for those who confront English earlier, before they acquire fluency and literacy in their mother tongue.

We attempted to make a further specification of our immigrants--that they had been in the country since 1975. Our reasoning was that the recent immigrants would be highly retentive and would tend to over-state the degree to which immigrants hold on to Spanish even beyond the considerable degree to which they do. However, we have dropped this distinction from the analysis for several reasons. First, by excluding them we lost a considerable number of cases, about 20% of all the immigrants (those arriving before they were 15 constitute another 10%). This in itself is interesting: Fully a fifth of the immigrants had arrived in the United States within 4 years of the survey. This group is some 9% of the entire adult Hispanic sample, enough to materially affect the comparisons with 1976, presuming that their language characteristics are significantly different from those who have been here longer, as well as the immigrants who died between 1976 and 1979. However, this turns out not to be a major problem.

The top half of Table IV.1 shows the language characteristics of the three alternative definitions of "first generation." The differences are not great, and all contrast markedly with the native-born groups in the bottom half of the table. Our choice of the "15 on arrival" alternative was dictated both by our desire to loose as few cases as possible, and also because we felt it was an essential restriction, while the further exclusion of recent immigrants was not.

Incidentally, note that the English ability differences, especially for immigrants, but also for natives, are obscured when "well" is added to "very well." While the percent speaking English "very well" is quite sensitive to generational and immigration differences, the percent reporting "well" is rather consistent across

all groups, native as well as immigrant. This is another point in favor of drawing the line between "very well" and "well."

The final issue had to do with how the second and third generations are defined. Actually, whatever our decision, the groups are more properly labeled "native of foreign" and "native of native." These are traditional Census Bureau categories, though the questions on which they are based have been dropped as of 1980. A simple solution, and one that would make our categories correspond to those in previous censuses, would be to restrict the third or "native of native" category to those with both parents U.S. born, and then combine those of mixed ancestry with those with both parents foreign born, a common Census Bureau practice. However, we are not so much interested in national population accounting as in portraying generational differences. Therefore, we have chosen to exclude the mixed ancestry individuals from the analysis. The bottom half of Table IV.1 shows what we are missing.

Mother tongue, it seems, does really mean what it implies, that the mother is more important than the father in determining language characteristics. This has been verified in some local language surveys, but to our knowledge this is the first national data set that allows us to confirm this seemingly obvious point. Actually, we know only the parents' birthplace; we are inferring language characteristics from this. But the inference is well taken: The two mixed parentage categories fall between the "pure" cases, but they are each closer to one of the pure cases than they are to each other. Those with foreign-born mothers and native fathers approximate the "both parents foreign" category, and those with native-born mothers and foreign-born fathers approximate the "both parents native category." The implication is clear: Either these groups should be analyzed separately, or generation should be defined in terms of mothers, not fathers. We hope to pursue this further in a subsequent paper, but in

this analysis we have chosen to use only the "pure" cases, in the interests of simplicity.

Table IV.1 shows that they differ markedly on all language indicators, save the "speaks English well" rate that we have already noted to be of little use. In using "second generation" we will be referring to what is commonly understood by that term. Our use of "third generation" for native of native is more open to question. We wish that we had the multi-generational retrospective information that would actually allow us to distinguish the true third generation from those with deeper roots in the United States. In the general United States population, the equation third generation = native of native would be quite inappropriate. However, the demographic history of Hispanics in the United States is such that most "native of natives" must have at least one immigrant grandparent, if not three or four. A small but significant segment of the Hispanic population can, in fact, trace its ancestry back for three or more generations on both sides. But the evidence of demographic history and various local and informal studies is that their significance is more symbolic and cultural than quantitative. Outside of northern New Mexico, it is a rare Hispanic indeed who does not have at least one pair of foreign-born grandparents. We recognize that the use of labels can have biasing effects on the reader, and that we cannot prove that our native of native category is substantially third generation. However, we still prefer the latter term to "native of native" both because it is less awkward and it probably expresses an historically important fact.

TABLE IV,1

Language Characteristics by Immigration and Generation Characteristics: Hispanic Adults, November, 1979 (Numbers in Thousands)

	Spanish Mother Tongue	Spanish at Home	Speaks English Very Well*	Speaks English Well*	100% =
Foreign-Born					
All	99%	95%	23%	23%	(2890)
15+ on arrival	99%	96%	18%	22%	(2419)
15+ on arrival and here since 1975	99%	95%	21%	24%	(1795)
Native-Born					
Both Parents Foreign	97%	82%	64%	21%	(798)
Mother Foreign Father Native	94%	77%	68%	19%	(196)
Father Foreign Mother Native	87%	61%	73%	20%	(382)
Both Parents Native	81%	61%	72%	23%	(1701)

Source: November, 1979 Current Population Survey

*Of those who speak Spanish at home and were therefore asked.

Throughout this report the cross-tabulations and means are presented without indication of their statistical significance. The Current Population Survey is based on a complex sample of households and is an approximately one in fifteen hundred sample of the entire population. For Hispanic adults the sampling ratio is 1/1560. Standard errors in the CPS vary according to sub-population, to region and to the content of the questions. Confidence intervals, then, would be based on unproven assumptions. Since the language data are inherently subjective in any case, we see no reason to add pretentions of precision. Even the decimal point is out of place, but the tables in Part V include them for those who care. Generally, any rate based on a population estimate of 30,000 or more is based on a sample of 20 or more cases, an accepted benchmark in survey analysis. The discriminant function analyses are based on a sample that has been first weighted, and then divided by the average weight, so that the significance levels accurately reflect the true sample size.

V. RESULTS AND DISCUSSION

Language Maintenance Across Three Generations

We turn now to what justifies the sometimes torturous methodological considerations of Chapters II and III: The three-generational analysis of the maintenance of Spanish in the United States. As explained in Chapter I, the 1979 mother tongue question was designed to be comparable to the 1970 Census question. The wording, however, was not identical. In 1970 the question was, "What language, other than English, was spoken in . . .'s home when s/he was a child?". In 1979 it was, "Was a language other than English spoken in . . .'s home when . . . was a child?"; (If yes) "What was that language?". Immigration, natural population growth, and methodological differences combine to make direct comparisons between 1970 and 1979 difficult. But both sources indicate Spanish mother tongue rates of 90% or more for adult Hispanics, in contrast to the 82% rate that the more restrictive "usual language" wording produced in 1976.

Table V.1 shows considerable variation by generation and by origin, but perhaps the most significant thing about this table is the consistently high rate of Spanish mother tongue. Even among the most anglicized group, the third generation non-Mexican Hispanics, 61.9% report that Spanish was spoken in their homes when they were growing up. Since this third generation is, in reality, a "native of native" category that includes individuals whose forebearers have been in the United States for more than two generations, the 61.9% rate is impressive, and the overall third generation rate of 81.1% is even more so.

Assuming that this "other than English" rate can be adjusted according to the simple ratio of the mother tongue rates in 1976 and 1979 (82/92), then that would suggest that among native of native Hispanics, seven out of ten (72%) were brought up in households where

TABLE V.1

Percent Spanish Mother Tongue by Type of Spanish Origin by Generation: Hispanic Adults 18-64 in the United States, November, 1979 (Numbers in Thousands)

Generation[1]	Percent Spanish Mother Tongue		
	Mexican Origin	Other Spanish Origin	All Spanish Origin
First	99.1 (1126)	98.6 (1297)	98.8 (2423)
Second	98.5 (524)	95.7 (253)	97.5 (777)
Third	86.0 (1328)	61.9 (340)	81.1 (1668)
Total	93.1 (2978)	91.6 (1890)	92.6 (4868)

Source: Current Population Survey, November, 1979

Notes: [1]First Generation includes only those who were 15 years or older when they arrived in the United States. This excludes about 400,000 "first and one half" individuals. Second and third generations include only those who have both parents foreign or native-born, respectively. This excludes an additional 578,000 mixed native/foreign parentage Hispanics. Were all these excluded groups included then the overall Spanish mother tongue rate would be 92.1 percent.

Spanish was the usual language. However, this straightforward adjustment procedure is open to question. It has been shown that it is precisely those groups with relatively marginal connections to their ethnic tongue whose rates are most susceptible to question wording variations. The most dramatic example of this is the doubling and even trebling of the proportion of native-born Japanese-Americans who indicate that they speak Japanese or live in Japanese-speaking households, simply by leaving out the word "often" (Lopez, July 1982: VII-9). Japanese-Americans maintain at least some familiarity with their ethnic language as part of a self-conscious effort of cultural maintenance. Few beyond the second generation actually speak Japanese as a native language, but many will say that they "speak Japanese" as long as no frequency or domain is specified.

Native of native Hispanics are in a very different cultural and class situation, and many genuinely have grown up speaking Spanish at home, particularly in South Texas and northern New Mexico. Still, the same differential sensitivity to question wording may well exist among Hispanics. Immigrants and their children will respond affirmatively to any reasonably worded question about growing up speaking Spanish, but among the third and subsequent generations, it may well be that question wording has a greater effect. We know, from this study as well as from local-level studies, that mother tongue and language use are more varied and more anglicized among the third and later Hispanic generations (Grebler, Moore & Guzman, 1970; Thompson, 1971). Unfortunately, we do not have any national-level data with generational distinctions that employed more restrictive wording. One local study, of Los Angeles Mexican-Americans in 1973, found that the rate of using "mostly Spanish" or "both equally" varied from 100% among immigrants to 46% among the native of natives (Lopez, 1978). The second generation rate was 69%. This study was one of the few that, however awkwardly, sought to use self-defining categories of bilingualism, something that has never been part of the Census Bureau's efforts. This, and the very great differences in sampling and wording, makes it impossible to use

these rates to adjust the 1979 results for the differential effects of question wording.

Instead, we have used the information from the methodologically similar 1976 Survey of Income and Education, and applied the second to third generation mother tongue ratios to "usual" Spanish mother tongue rates for the total native-born population in that survey. The procedure and its results are displayed in Table V.2. The results are striking. The measured Spanish mother tongue rate for all third generation Hispanics in 1979 is 81%. Adjusting for the overall difference between 1976 and 1979 reduces this rate to 72%, but when the adjustment is based on the 1976 rate for natives only, it falls to 62%. Even this technique does not really adjust for the question wording effect differential that probably exists between the second and third generations; it only adjusts for the foreign and Mexican native other differential effects. The true figures would probably be somewhat higher for the second generation and correspondingly lower for the third generation.

Whether the measured or adjusted rates are used, very real generational and origin differences remain. The least variation is found in the first generation, where substantially all (99%) of the Mexican and other origin immigrants report that they grew up speaking Spanish. Virtually the same rates were found in the 1976 survey. As noted above, wording has less effect when the reality to which it relates is clear-cut.

The measured second generation rate is essentially the same for the Mexican-Americans; for other Hispanics it drops a few points. When adjusted to the 1976 average, all these rates drop dramatically, probably too dramatically, as explained above. In the measured rates, it is not until the third generation that there is a significant drop in Spanish mother tongue. This corresponds with localized survey data and with impressionistic evidence, but the actual rates are suspect.

TABLE V.2

Spanish Mother Tongue Rates by Generation, Observed and Adjusted to be Commensurate with "Usual" Mother Tongue as asked in the 1976 Survey of Income and Education: Native Hispanic Adults 18-64 in the United States, November, 1979 (Numbers in Thousands)

	All Native	Second Generation	Third Generation
All Hispanic			
1979 Spanish at home	86.3%	97.5%	81.1%
1976 Spanish usual	66%	--	--
1979 adjusted	66%	75%	62%
Mexican Origin			
1979 Spanish at home	89.5%	98.5%	86.0%
1976 Spanish usual at home	71%	--	--
1979 adjusted	71%	78%	68%
Other Hispanics			
1979 Spanish at home	76.2%	95.7%	61.9%
1976 Spanish usual at home	49%	--	--
1979 adjusted	49.%	62%	40%

Source: 1976 Survey of Income and Education; November, 1979 Current Population Survey

In the 1979 results the most dramatic difference is among the Other Spanish, where the second generation mother tongue drops from 96% to 62%. The shift among Mexican-Americans is more modest, from 99% to 86%. The adjusted figures are markedly lower, 40 and 68% respectively.

The clearest conclusion to be drawn from all this is that Mexican-Americans maintain Spanish considerably more than other Hispanics, taken as a group. Non-Mexican latinos appear to be very retentive simply because the overwhelming majority are immigrants (Lopez, July 1982: Chapter 5). Of course, there is variation among these other Hispanics, just as there is among Mexicans (see Lopez, 1978, and Veltman, 1981a, for discussions of subgroup regional variation, respectively). And we also know that the apparent rates of Spanish mother tongue and use are much lower for Hispanic children today than for their parents. Still, there is incontrovertible evidence that Mexican-American adults were more likely to have grown up speaking Spanish than other Hispanics of the same generation.

The intergenerational variation is more problematic. Certainly the intergenerational decline in the use of Spanish for all Hispanics is clear, whichever set of figures is used. But that could hardly be otherwise. The interesting issues are the rate of change and where it is most rapid. The unadjusted figures indicate that the overall level of maintenance is considerable, but that the big drop is after the second generation. The adjusted figures produce considerably lower rates in both the second and third generations, but are too hypothetical for assessing which drop is greatest. And, of course, this second issue is clouded in both sets of figures because we do not know what proportion of our "third generation" is actually fourth generation or more. Mother tongue alone is not a satisfactory indicator of the Hispanic language maintenance and shift picture, and the very fact that it is not is evidence that Hispanics do maintain their language more than previous immigrant stocks and probably more than other contemporary non-English mother tongue groups as well. For most of

these others, the drop in ethnic mother tongue in this third generation is so considerable that there is no doubt that the group is loosing its language (Fishman, et al., 1966; Lopez, 1982: Chapters 1 and 2). Today's Native-born second and third generation Hispanics, whatever their present patterns of maintenance and shift, have a strong heritage of using Spanish in the past. However the question is phrased, at least two-thirds spoke Spanish at home while growing up, and the consequences of that fact--good, ill and neutral--cannot be ignored.

Table V.3 presents the current language patterns of adult Hispanics, by origin and generation. We had to adjust the mother tongue data to escape from the confines of the 1979 mother tongue question. We could do the same thing for these current language use figures, with similar dramatic results. Instead, we have decided to combine the language at home and English ability questions, as explained in Chapter III. As we emphasized there, this is a procedure that we employ only out of desperation; there is no other choice. (Adjusting as we did for mother tongue would suffice for assessing overall rates, but not for looking at the characteristics associated with language shift, as we shall do in subsequent tables.)

The language use rates in Table V.3 must be interpreted only relatively. The generational and origin differences have meaning, but the absolute rates do not. As explained in Chapter III, we are using English speaking ability as a means of breaking down the large "Spanish at home" category, which we have shown to be equivalent to all levels of Spanish use as measured in 1976. We chose to divide the English speaking ability responses at "very well" versus all others, so that the distinction would be roughly equal to the distinction in 1976 between those whose usual language is English and Spanish respectively. Therefore, the category "Spanish at home, speaks English very well" is equivalent to "Usually speaks English but also speaks Spanish often" in 1976. The "Spanish at home, does not speak English very well" category

is composed of equal proportions of Spanish speakers who speak only Spanish and those who also speak English often.

Table V.3 shows that there are very real generational differences in the use of Spanish, and that these generational differences hold for both Mexican and other origin Hispanics. Four out of five immigrants who came to the United States after they were 15 (our definition of "first generation") continue to speak primarily Spanish. Though the question referred to the language spoken at home, we can safely presume that their answers are roughly accurate for their language behavior outside as well; certainly they do not speak Spanish more outside the home than within. Most of the rest speak a mix of Spanish and English, and indicate that they speak Enlgish very well. Only 4% say that they speak only English at home.

The rate of speaking primarily Spanish drops sharply by generation. While in the first it was 78.1%, in the second it is 29.2% and in the third, 16.7%. Thus, by this measure the drop is sharpest in the second generation, just as has been the case for other non-English speaking immigrant stocks in the United States. There is no way to make unambiguous comparisons between Hispanics today and immigrant stocks in earlier times, but we can make comparisons with other immigrant stocks today and we can also make internal comparisons. This paper does only the latter, but earlier work (Veltman, 1980; Lopez, 1982) has established that Spanish and Navajo are the only languages that are passed on from generation to generation to significant degrees. Furthermore, at least in the case of Spanish, passing on Spanish is a minority pattern; after the second generation, English is the dominant language of most Hispanics, according to previous work.

Looking at the language use patterns for Mexicans and other Hispanics separately gives further insight into how Spanish is maintained. Other Hispanics (which includes Puerto Ricans, Cubans, Central and South Americans and the nebulous "other Spanish"

TABLE V.3

Language Spoken at Home by Type of Spanish Origin and Generation: Hispanic Adults 18-64 in the United States, November, 1979 (Numbers in Thousands)

	Language at Home			
	Spanish, does not speak English very well	Spanish, speaks English very well	English only	100% =
All Spanish Origin				
First Generation	78.1%	17.6%	4.3%	(2457)
Second Generation	29.2%	52.8%	18.0%	(791)
Third Generation	16.7%	44.4%	38.9%	(1697)
Total	49.2	32.5	18.3	(4945)
Mexican Origin				
First Generation	88.4%	9.1%	2.5%	(1134)
Second Generation	36.4%	49.1%	14.5%	(532)
Third Generation	19.5%	48.3%	32.3%	(1332)
Total	48.6%	33.6%	17.9%	(2999)
Other Spanish Origin				
First Generation	69.2%	25.0%	5.8%	(1323)
Second Generation	14.4%	60.3%	25.3%	(259)
Third Generation	2.6%	30.5%	62.9%	(365)
Total	50.2%	30.7%	19.1%	(1947)

Source: Current Population Survey, November, 1979

Note: See note to Table V.1 for explanation of how generation was defined. See text for explanation of "language at home." These categories can be read as equivalent to "primarily Spanish" "primarily English but also Spanish" and "English only."

categories) have generational patterns that must be close to those of European immigrants at the turn of the century. Two-thirds or more of the immigrants speak primarily Spanish at home, but this drops dramatically to only 14% in the second generation, and to only 2-3% in the third. Sizeable proportions in the second and third generations (60 and 30% respectively) continue to use Spanish as well as English, though, if our analysis of the 1979 language question is correct, they speak English more than Spanish. Whatever the absolute meaning of these categories, the relative difference between Mexicans and other Hispanics is clear. Even in the first generation, Mexicans maintain Spanish dominance to a greater extent (this was also found to be the case in the 1976 data set; see Lopez, July 1982). In the second generation the Spanish dominance rate drops to 36.4% for Mexican-Americans, but to 14.4% for other Hispanics. For the third generation the contrast is even more dramatic, 19.5% and 2.6% respectively. In other words, about a fifth of the native-of-native (third generation) Mexican-American population continues to live more in Spanish than in English.

Previous survey work (Grebler, Moore & Guzman, 1970; Veltman, 1981a) has already indicated the location of this multi-generational maintenance of Spanish--the rural Southwest (including Texas). Our findings are consistent with this, and also suggest that the magnitude is considerable, though hardly a majority. As stressed in Chapter III, we do not really know the generational makeup of the native-of-native category which we have labeled, perhaps unfairly, the third generation. The demographic history of the Mexican-American population, with the great surge in migration from Mexico in the early decades of this century, makes it likely that a large part of the third generation category is accurately labeled, but we cannot say for sure. And in any case, large-scale continued use of a language other than English in the true third generation is impressive enough. Even that indicates a level of stability unknown among other groups, except for Navajo and possibly some smaller Native American tribes.

If it is the Mexican-Americans who are most responsible for the maintenance of Spanish, then what about the observably high levels of using Spanish among Cuban, Puerto Ricans and other Latin Americans in the United States? The answer is easily seen in the generational composition of the two groups. Only 38% of the Mexican-Americans are foreign-born, in contrast to 68% of the other (the rates for the complete populations, including the first and a half generation, and those of mixed ancestry are about the same). Furthermore, 44% of the Mexican-American sample indicates that they are natives of natives; the proportion for other Hispanics is only 19%. Because of these compositional differences, the overall language use rates for the Mexican and Other Spanish Origin groups are about equal, despite the great differences when generation is controlled.

If the generation-specific rates are constant over time, and ignoring demographic complexities, then the home language of one generation should equal the mother tongue of the next. Obviously, this can be only a very crude comparison, but it is one that is worth doing as long as the results are viewed with caution. These comparisons are presented in Table V.4 for the two origin groups and for all Hispanics combined. This has been done in two ways: The top of the table uses the actual Spanish response rates to the mother tongue and current "language other than English" questions. The second half of the table uses the adjusted mother tongue rates from Table V.2 and the "Spanish, speaks English not very well" category from Table V.3.

The results, for what they are worth, are interesting. There is quite a close correspondence for each of the pairs in the first half of the table. Only the second to third generation rates for Other Spanish Origin differ markedly. The adjusted rates vary rather more. This is to be expected, since current and upbringing rates are based on quite different measures. Even so, the match of first generation home language and second generation mother tongue is fairly close. However, the correspondence totally breaks down when we come to the second to

TABLE V.4

Comparisons of Home Language in One Generation with Mother Tongue in the Next, Using both Direct and Adjusted Measures of Spanish at Home. Hispanic Adults 18-64 in the United States, November, 1979

	All Hispanics	Mexican Origin	Other Hispanics
A. Any Spanish at Home and Upbringing			
First Generation Spanish at Home	96%	98%	95%
Second Generation Spanish Upbringing	98%	99%	96%
Second Generation Spanish at Home	82%	85%	75%
Third Generation Spanish Upbringing	81%	86%	62%
B. Adjusted Spanish Mother Tongue and Spanish/English not Very Well			
First Generation Spanish at Home	78%	88%	69%
Second Generation Spanish Upbringing	75%	78%	62%
Second Generation Spanish at Home	29%	36%	14%
Third Generation Spanish Upbringing	62%	68%	40%

Source: Tables IV.1-IV.4

See text for explanation.

third generation comparisons: The second generation primarily Spanish rates are much lower than the third generation's adjusted Spanish mother tongue rates.

We argued earlier that our mother tongue adjustment procedure understated Spanish mother tongue rates for the second generation and overstated them for the third generation. These findings are consistent with, though hardly firm proof of, that argument. Of course, there are other factors involved in the interpretation of this disparity, including the inappropriateness of the comparisons being made and also the possibility of genuine historical change. But, if factors like this are to blame, then why is it that in the first to second generation comparisons, the second generation upbringing language rates are consistently lower, while in the second to third generation comparisons the third generation upbringing language rates are consistently higher? We argued above that this was precisely the direction of bias in our adjustment procedure. If this table does not prove that, at least it is further evidence in that direction.

All of the analysis so far has been with respect to simple marginal frequencies. The best way, of course, to assess language maintenance and shift is by comparing mother tongue and current language rates. The overly inclusive quality of the 1979 non-English mother tongue question hampers this sort of analysis, because so few people are classified as of English mother tongue. It is only in the third generation that the number becomes substantial. Still, controlling for mother tongue does clarify the actual rates of Spanish maintenance. These are intragenerational rates, but they are also implicitly the intergenerational rates, assuming that the home language of adults determines the mother tongue of their children.

Tables V.5 and V.6 present the intragenerational language maintenance rates for Mexican-Americans and Other Hispanics respectively. We have not bothered to provide a further table for all

Hispanics combined, or to present the rates for the mother tongue groups across all generations. Looking first at the Mexican-Americans that we know to be the more retentive, we find little additional information for the first and second generations. Since both populations are overwhelming Spanish (98-99% in mother tongue, separating out these reporting English mother tongues makes little difference. There are some oddities here, however. How do any of the first generation come by their English mother tongue? These are, remember, only those people who came to the United States after they were fifteen. Some of them may well be English speakers who have mysteriously slipped into our Hispanic immigrant sample (all large data sets have "noise," so there is no reason to quibble over a few percent here and there). But the fact that over two-thirds of these English mother tongue immigrants indicate that they usually speak Spanish and do not speak English "very well" suggests that it is noise of another kind, that is, incorrect responses to the mother tongue question (another sort of noise that is not worth fussing about).

The second generation English mother tongue Mexican-Americans constitute a more interpretable group, though the numbers are still too small for significance. It is reasonable to expect that at least some second generation individuals will be raised primarily in English. And, in fact, one of the distinctive qualities of this population is that the English mother tongue rate is so low, both in comparison to other Hispanics and in comparison to other immigrant stocks. (Remember that our second generation group includes only those whose both parents were born abroad.) In any case, the rate of Spanish dominance among this group is lower than for the first generation, but still higher than one would expect of people who genuinely were brought up speaking only English. It would be interesting if this were indicative of some degree of "reverse" language shift, but, noise being noise, it would be foolish to make such an interpretation.

TABLE V.5

Language Spoken at Home by Mother Tongue by Generation:
Mexican-American Adults 18-64 in the United States,
November, 1979 (Numbers in Thousands)

	Percent Spanish, does not speak English very well	Percent Spanish, speaks English very well	Percent English only	100% =
First Generation				
Spanish Mother Tongue	89.1%	8.9%	2.1%	(1116)
English Mother Tongue	68.9%	--	31.1%	(10)
Second Generation				
Spanish Mother Tongue	37.3%	48.8%	13.9%	(516)
English Mother Tongue	22.6%	51.7%	25.6%	(8)
Third Generation				
Spanish Mother Tongue	22.7%	54.2%	23.1%	(1142)
English Mother Tongue	--	11.8%	88.2%	(186)

Source: November, 1979 Survey of Income and Education

The third generation English mother tongue Mexican-Americans are easier to interpret. They constitute a minority, but one that is overwhelmingly English-only (88%) in their current language as well as in their reported mother tongue. They stand out in clear contrast to the Spanish mother tongue third generation, which divides up into three groups: The 20-25% that continues to use predominantly Spanish, the 50-55% that uses Spanish but as an adjunct to English, and the 20-25% that speaks only English, though presumably can muster their Spanish when necessary. These language use rates for the third generation mean various things. First of all, they indicate that current language use is not just a matter of mother tongue; there is definite shift towards English on the part of those raised speaking Spanish. However, shift is by no means total; a significant minority continues to speak primarily Spanish, even in the third generation, and a majority of the third generation continues to use Spanish at least to some degree. Among the second generation both of these generalizations can be made even more emphatically.

We have already seen that, judging by summary frequencies, Other Hispanics are less retentive of Spanish than are Mexican-Americans. The constrast is all the sharper when mother tongue is controlled for, as in Table V.6. To begin with, the English mother tongue categories are easier to interpret with Other Hispanics than with the Mexican-Americans, though the numbers are still tiny. Other Hispanics are a considerably larger proportion of the third generation (39% compared to 14% among Mexican-Americans). Ninety five percent of these third generation English-raised Other Hispanics indicate that they speak only English at home; the remaining few are in the English/Spanish category. Among the second generation English-raised, the proportion speaking only English drops to 67%, with the balance speaking both. Like Mexicans, Other Hispanics have an English mother tongue, first generation category which is difficult to interpret. But while 69% of the Mexicans indicated that they spoke primarily Spanish and did not

speak English very well, only 19% of the Other Hispanics are so categorized. The rest are spread equally between the Spanish/English and English categories. In sum, in each generation the English mother tongue Other Hispanics show a more English pattern of current language use.

Of course, the more important data are for the Spanish-raised. This is also where we have the clearest evidence that Other Hispanics do not hold on to Spanish as much as Mexican-Americans. Within each generation, the rates of shifting to English are higher, whether this is measured in terms of English monolingualism or in terms of English monolingualism and English-dominant bilingualism. For example, in the second generation, only 15% of the Spanish mother tongue Other Hispanics indicate that they do not speak English very well, in contrast to 37% for the Mexican-Americans. The same rates for the third generation are 12% and 23%. Even in the first generation, the contrast is considerable, 70 vs. 89%. The shift is to Spanish monolingualism as well as to English dominant bilingualism. Thus, in the second and third generations the English-only rates are 23% and 40% for Other Hispanics. For the Mexican-Americans they are 14% and 23%.

In sum, this analysis of three generations has shown what the previous native/foreign-born analysis suggested (Lopez, July 1982), i.e., that Mexican-Americans are more Spanish retentive than most other Hispanic groups in the United States, and that the only reason that these other groups sometimes appear to be as retentive or more is that they contain larger foreign-born contingents in their populations. The next logical step is to get away from all these numbers and rates and to seek to understand better the qualititive differences between the Mexican-American experience and those of Other Hispanics whose migration, language and acculturation patterns more closely approximate the "usual" immigrant experience in the United States. Such interesting and important questions are not easily pursued in national surveys, however, and must be left to other investigators. In the

TABLE V.6

Language Spoken at Home by Mother Tongue and Generation:
Other Hispanic Adults 18-64 in the United States,
November, 1979 (Numbers in Thousands)

	Percent Spanish, does not speak English very well	Percent Spanish, speaks English very well	Percent English only	100% =
First Generation				
Spanish Mother Tongue	70.3%	24.6%	5.1%	(1279)
English Mother Tongue	18.9%	40.0%	41.1%	(18)
Second Generation				
Spanish Mother Tongue	15.4%	61.7%	22.9%	(242)
English Mother Tongue	--	32.9%	67.1%	(11)
Third Generation				
Spanish Mother Tongue	11.5%	48.1%	40.3%	(210)
English Mother Tongue	--	5.5%	94.5%	(130)

Source: November, 1979 Current Population Survey

sections that follow we shall sketch out basic patterns of relationships between socioeconomic and language characteristics, and employ discriminant function analysis to tease out a secondary but interesting relation between language use and social background and status characteristics.

Language Patterns and Socioeconomic Characteristics

Several investigators have dealt with the relation between language and socioeconomic status, with mixed results. Beyond the broad and rather obvious general association between speaking Spanish and low socioeconomic attainments (an association that is confounded by generational and social origin factors), little has been established in this area. One work was able to show a negative effect of Spanish upbringing on ultimate socioeconomic attainments for a localized sample of Mexican-Americans (Lopez, 1976). But such effects cannot be established in national samples like the 1976 SIE and the 1979 CPS, which lack any indication of the socioeconomic level of upbringing homes. Instead, the best one can do is to establish that there are associations between language characteristics, background or current, and socioeconomic attainments. For this, several controls are necessary to attain even a descriptive level of analysis. Because education, occupational and income levels are generally associated with both age and sex, we have limited our analysis to males between the ages of 25 and 54. By the age of 25, language patterns are firmly established, most people have completed their formal education, and they are well into the workforce. Income will rise gradually with age, but (in our sample) that steady rise does not affect associations with language, and it is only after age 54 that the relation between age and income shifts downward. The usual generational distinctions used in this paper are maintained here.

Table V.7 presents the mean educational, occupational prestige, and income attainments for all male Hispanics, age 25-54, by generation and mother tongue. The English mother tongue categories are quite

small in the first and second generations, even when all Hispanics are combined, as in Table V.7. Therefore, these anomolous results, especially in the first generation, should not be cause for concern. Bearing this in mind, there are clear, if modest, associations between Spanish mother tongue and lower levels of attainments. This is clear for education and income, but does not seem to be the case for occupational prestige, which is odd, since one would expect that performance in English would actually be more associated with occupational prestige than with income.

The next two tables present the association between current language use at home (as defined throughout this paper) and socio-economic attainments, with the same controls as in Table V.7. Results are presented separately for Mexican-Americans and Other Hispanics (not possible in the mother tongue analysis because the English mother tongue categories were too small). Again, the results are straight-forward for education and income, but not for occupational attainment. In the case of education, the differences by current language are actually sharper than for mother tongue. The sharpest contrast is found among first generation Mexican-Americans, where the mean education varies from 6.3 years for Spanish monolinguals to 12.5 years for English monolinguals. This particular comparison is actually relating schooling abroad and current language use. What it really means is that well-educated immigrants are more likely to make the transition to speaking primarily or only English (the same pattern is found among the Other Hispanic first generation), but the second generation is more puzzling. Here again, among the Mexican-Americans there is a sharp gap between those who speak primarily Spanish and the other language categories. Ignoring complications like the possibility that a sizeable proportion of this group actually belongs to the first generation, the only conclusion to be drawn is that the Spanish adults are in large part school dropouts. That the pattern is absent among the Other Hispanics suggests that they have been able to maintain the use of Spanish without educational disabilities.

TABLE V.7

Socioeconomic Characteristics of Hispanic Males 25-54, by Mother Tongue and Generation (Numbers in Thousands)

Mother Tongue	Mean Schooling (years)	Mean Occupational Prestige (Treiman scale)	Mean Income (dollars)	N =
First Generation				
All	8.5	17.4%	11,428	(866)
Spanish	8.5	17.5%	11,389	(859)
English	9.3	10.6%	16.205	(7)
Second Generation				
All	10.8	20.2%	15,182	(224)
Spanish	10.7	20.0%	14,951	(216)
English	11.6	23.0%	21,268	(8)
Third Generation				
All	11.8	19.4	15,318	(500)
Spanish	11.6	19.5	14,494	(430)
English	13.0	18.4	20.423	(70)

Source: November, 1979 Curent Population Survey

In the third generation, the Mexican-American and Other Spanish patterns are quite similar: A gap of about two years between Spanish dominance and Spanish/English, and then a smaller gap between the latter and English monolingualism. Logically, schooling is a thing of the past for this sample, while by definition the language they speak is a current measure. But it does not follow that the causation is from the prior schooling to the current language use. Rather, it seems more sensible to take current language use as an indicator of the language spoken while growing up (not just when a child, the usual referent for mother tongue). In other words, except for the second generation Other Hispanics, using English and schooling attainment are generally associated. The same thing is true for current language and income levels.

Is there any support in these tables for the hypothesis that the bilingual or ENGLISH/Spanish pattern is particularly advantageous? Not among the Mexican-Americans, for whom all comprisons save one puts ENGLISH/Spanish simply as a middle category between the two sorts of monolingualism. But for the Other Hispanics, the picture is slightly different: By small margins, the bilingual category outshines the others in four out of the nine comparisons. We shall return to the possibly special character of at least some of the bilinguals in the last part of the analysis.

In sum, among each generational and origin group there are clear associations between using English and socioeconomic status. Even among the second generation Other Hispanics, where language use and education do not seem to be associated, the income deficit of those who report they speak primarily Spanish is clear. But, it could be argued, these comparisons are really not fair, because they do not take into account the further question of language background. The issue should be couched in terms of the relation between socioeconomic attainments and the maintenance of Spanish among those for whom it is their mother tongue. For the first and second generations, with their low

proportions of English mother tongue individuals, this makes very little difference. However, it could conceivably make a difference among the third generation. To test this, we repeated the analysis of Tables V.8 and V.9, but including only those of Spanish mother tongue (the small numbers and lack of language diversity make it pointless to do the same for those of English mother tongue). The differences were quite minimal. The pattern of association discussed above is substantially unchanged, with some means a bit higher, and others a bit lower. However, the strong associations between Spanish dominance and low educational and income levels remain. Whatever the mechanisms of causation, there can be no doubt about the association.

We have not discussed the socioeconomic data in terms of the differences between Mexican and Other Hispanic Origin groups because we want to keep the focus on language. In any case, there is so much socioeconomic variation within the Other Hispanic category that it makes little sense to discuss it as a whole; it includes well-to-do Cubans and South Americans, along with the Puerto Ricans, who are in many respects worse off than Mexican-Americans.

TABLE V.8

Socioeconomic Characteristics of Mexican Origin Males 25-54 by Current Home Language and Generation (Numbers in Thousands)

Language at Home	Mean Education (years)	Mean Occupational Prestige	Mean Income	N =
First Generation				
Spanish	6.3	31.6	9,226	(399)
Spanish/English	10.8	37.8	13,497	(43)
English	12.5	36.9	18,525	(14)
Second Generation				
Spanish	6.8	27.7	10,655	(59)
Spanish/English	11.3	33.3	18,045	(71)
English	12.9	38.9	20,088	(32)
Third Generation				
Spanish	9.8	31.5	12,140	(77)
Spanish/English	11.7	32.7	15,094	(214)
English	12.9	38.8	17,364	(119)

Source: November, 1979 Current Population Survey

See text and Table V.1 for definitions.

TABLE V.9

Socioeconomic Characteristics of Other Hispanic Males 25-54 by Current Home Language and Generation (Numbers in Thousands)

Language at Home	Mean Education (years)	Mean Occupational Prestige	Mean Income	N =
First Generation				
Spanish	8.9	29.0	11,100	(266)
Spanish/English	13.0	43.3	16,649	(123)
English	12.5	27.6	17,107	(29)
Second Generation				
Spanish	12.3	27.4	9,791	(9)
Spanish/English	12.6	28.9	15,275	(36)
English	12.6	26.8	14,001	(23)
Third Generation				
Spanish	9.9	19.1	8,602	(6)
Spanish/English	12.3	32.7	13,470	(33)
English	12.8	35.2	19,192	(60)

Source: November, 1979 Current Population Survey

See text and Table V.1 for definitions.

A Secondary Pattern

Thus far in our analysis we have looked at the relation of language background and generation to current language use, and then at the relation of language use and maintenance to socioeconomic characteristics. The next step is to combine these two sorts of variables. In doing this one must proceed with caution. The language and generation analysis was based on causal logic: What better way to explain current language than by language background? However, the associations between language use and socioeconomic characteristics were not easily interpretable in terms of cause and effect. Occupational status and income, in particular, cannot be seen as directly determined by language use and ability. Rather, both logically and in terms of measured levels of association (Lopez, 1976), education is an intermediate variable between language and income and occupational attainments.

But we are not interested in only linear relations between language use (Spanish to English) and other factors. We know that a distinctive characteristic of Hispanics, Mexican and otherwise, is the high degree to which they maintain bilingualism in various forms after the second generation. Is there anything distinctive about bilingualism per se that sets them apart from both Spanish and English monolinguals? There are several ways to approach this question with data like the 1979 survey. None is totally satisfactory; indeed, the data were not collected in such a way that it is easy to focus on bilingualism. We have chosen to employ Multiple Discriminant Function Analysis (MDFA) to provide at least a preliminary answer to this question. MDFA allows the analyst to discriminate among two or more groups in terms of linear functions composed of a number of variables. MDFA has two great advantages that suit it to our task: The "dependent variable" is a set of groups, and there can be more than one function. In fact, the number of functions is always one less than the number of groups. The functions are composed of coefficients for the variables

that best discriminate among the groups. Like the first factor in factor analysis, the first function is generally the most powerful, and not terribly interesting. It is composed of the variables most associated with the major dimension distinguishing among the three groups, and so produces results that would also be obtained in any multivariate analysis. However, the second (or the third or fourth, if there are enough groups in the analysis) typically orders the groups in a different way and is composed of a very different selection of variables. If the first function describes the major pattern, the second taps a secondary but also real pattern in the data.

Table V.10 presents MDFA's discriminating among the three principal language use categories that we have employed in this paper: Spanish at home, without very good English reported; Spanish at home with very good English reported; and English only. We tried various combinations of independent variables, including income and occupation, and factors like SMSA residence and region for controls. The latter added little clarity to the analysis, and the former were excluded in the interests of maintaining at least a quasi-causal logic to the analysis (though, of course, we are not interpreting education as simply a direct cause of language use). We also tried to do similar analysis on only the Spanish mother tongue population, only native-born Hispanics, and separately by generation. The results of these various sub-analyses were highly mixed, and often difficult or impossible to interpret. Therefore, we have chosen to report only the relatively clear-cut results, those obtained when the independent variables are restricted to mother tongue, birthplace, parents' birthplace, and education, along with a further analysis suggested by results. The analysis is done for all Hispanics, and for the two origin sub-groups separately.

Four sorts of information are presented in Table V.10: The standarized canonical distriminant function coefficients are analogous

TABLE V.10

Multiple Discrimination Function Analysis of Home Language Groups on Background Variables. Hispanics 18-64 in the United States, November, 1979

	All Hispanics		Mexican Origin		Other Hispanics	
	F_1	F_2	F_1	F_2	F_1	F_2
A. Standardized Canonical Discriminant Function Coefficients						
Spanish Mother Tongue	-.40	.87	-.31	.92	-.45	.62
Foreign Birth	-.55	-.35	-.51	-.30	-.54	-.46
Mother Foreign Birth	-.16	.18	-.16	.11	.26	.48
Father Foreign Birth	.00	-.02	.01	.00	.03	.14
Education	.60	.41	.61	.25	.45	.63
B. Group Centroids						
Spanish	-.97	-.16	-1.03	-.11	-.89	-.25
Spanish/English	.48	.50	.61	.43	.18	.60
English	1.49	-.57	1.36	-.62	1.80	-.39
C. Significance						
Eigenvalue	.92	.16	.95	.14	1.03	.18
Canonical Correlation	.69	.37	.70	.35	.71	.39
Percent of Explained Variance	85	15	87	13	85	15

Source: November, 1979 Current Population Survey

to factor loadings or standardized regression coefficients; the group centroids establish the ordering of the groups by the particular function; the eigenvalues and connonical correlations can be taken as measures of significance; and the percent of variance indicates the relative strength of the two functions. The results are consistent for the origin sub-groups and all Hispanics combined. As expected, the first factor is the strongest, accounting for 85 to 87% of the variance explained, and with strong eigenvalues and connonical correlations of .92 and .69 respectively for all Hispanics (the subgroup results are similar). This function orders the language use groups, low to high Spanish, Spanish/English and English, in a fairly linear fashion. It is composed primarily of English mother tongue, U.S. birth and educational attainment, with a somewhat weaker coefficient for mother U.S. born. In other words, it says that the dimension Spanish, Spanish/English, English is associated with mother tongue, generation and educational attainment. This result is not exactly earth-shattering, and for the most part is virtually tautological. The stong positive net relation between education and using English is not tautological, however, and can be interpreted to mean that using English is associated with educational level, even when generation and language background are taken into account.

The second function is weaker but more interesting. It accounts for 13-15% of the variance explained, has eigenvalues of .14 and .16 and cannonical correlations of .35 to .39. In other words, it is weak in comparison to the first function, but is also strong enough to merit interpretation. The centroids indicate that it also orders the language use groups differently, though the meaning of the ordering is open to interpretation. Clearly, Spanish/English is now clearly distinguished from both Spanish and English. However, the placement along the dimension of the other two groups varies somewhat according to origin subgroup. Among the Other Hispanics, Spanish/English is 85 points away from Spanish and 99 points away from English. Spanish and English, however, are separated by only 14 points. Among

Mexican-Americans the ordering is more linear, Spanish/English to Spanish to English. The overall result is, as expected, somewhat in between. We can conclude that among all groups the ordering is different than for the first function, with Spanish/English at one end rather than in the middle. And, at least among the non-Mexican Hispanics, there is a clear pattern of Spanish/English being at one pole and the two monolingual categories being at the other.

What are the characteristics that produce this different ordering? Spanish mother tongue is the strongest consistent component, with coefficients of .62 to .92. Foreign birth is negatively involved, while mother's foreign birth has a consistent positive coefficient. As in the first factor, father's birthplace adds nothing after these factors are taken into account. Finally, education has a positive coefficient. In other words, the pattern of the second function is Spanish mother tongue, second generation and well-educated. This is in contrast with the pattern of the first function, which was English mother tongue, third generation and well educated.

What does this result mean? The interpretation is made more difficult by the variation in the centroid ordering discussed above. As has proven to be the case throughout this analysis, it is necessary to consider Mexican-Americans and Other Hispanics separately. In fact, re-examination of the group centroid patterns for the first function shows a significant variation: Among Mexican-Americans the first function distinguished between Spanish and Spanish/English more strongly than between Spanish/English and English; among other Hispanics the opposite was the case. We have developed no clear interpretation of how this relates to the pattern of independent variable coefficients, but the meaning of the two pattern differences is rather clearer for the second function. Among Other Hispanics, the second function has strong coefficients for education (.63), Spanish mother tongue (.62), U.S. birth (.46), and mother foreign-born (.48). Father's U.S. birth enters in, though weakly, at .14 (as a guide to the

meaning of these coefficients, they tend to be about twice the corresponding standardized regression coefficient). In other words, there is a clear, if secondary, pattern that, among Other Hispanics, distinguishes a well-educated and bilingual second generation (in terms of mother's birth place) from both Spanish and English monolinguals. The same pattern is much weaker among Mexican-Americans, with lower coefficients for edcuation and generation. Furthermore, the second function among Mexican-Americans is not so much distinguishing between bilinguals and monolinguals as it is re-ordering the three groups along a continuum from Spanish/English to Spanish to English.

As a further exploration of apparent association of high educational attainment with bilingualism among non-Mexican Hispanics, we added in the two other available indicators of status: Occupational prestige and income. This analysis was confined to men in the labor force, to avoid the complications of sex differences in attainments. Table V.11 presents the results for Other Hispanics. Confining the analysis to males changes the coefficients somewhat, even before the additional variables are added in. The major change is that among males, being born in the United States figures less into the second function. The first function is essentially unchanged. We have not investigated sex differences in language patterns in this paper. The overall rates of maintenance and shift are about the same, but this and other intriguing differences suggest that a through-going analysis of sex differentials in language patterns may prove fruitful.

The expanded functions on the right side of Table V.11 indicate that occupational prestige and income do enter into this secondary pattern. While they add little or nothing to the first function (with coefficients of .06 and .12, in contrast to the education coefficient of .42), in the second function their coefficients are modest but respectable, .28 and .16. The pattern of other coefficients is essentially stable. This confirms that, in fact, the secondary pattern

separating bilinguals from Spanish and English monolinguals is in part composed of high current status, as well as of education.

TABLE V.11

Multiple Discriminant Function Analysis of Home Language Groups on Background and Current Status Variables. Non-Mexican Origin Men 25-54 in the United States, November, 1979

	a. Background Variables Only		b. Background and Current Status	
	F_1	F_2	F_1	F_2
A. Standardized Canonical Discriminant Function Coefficients				
Spanish Mother Tongue	-.38	.66	-.35	.68
Foreign Bith	-.59	.15	-.61	-.19
Mother Foreign Born	-.17	.38	-.17	.32
Father Foreign Born	.02	-.27	.02	-.18
Education	.48	.73	.42	.57
Occupational Prestige	--	--	.06	.28
Income	--	--	.12	.16
B. Group Centroids				
Spanish			-.94	-.25
Spanish/English			.16	.55
English			1.47	-.38
C. Significance				
Eigenvalue	.86	.15	.89	.16
Canonical Correlation	.68	.36	.69	.38
Percent of Explained Variance	.85	.15	.84	.16

Source: November, 1979 Current Population Survey

IV. SUMMARY

This report has made five important points that increase our understanding of Spanish language maintenance in the United States and the meaning of the latest information about it as derived from the November, 1979, Current Population Survey and the 1980 Census of Population.

First, the apparently high rates of Spanish use and maintenance found in 1979 and 1980 are, in fact, fully consistent with earlier sources that report much lower (though still impressive) rates. The differences are due largely to question wording. Thus, the inclusive "other than English" questions used in 1979 and 1980 yield Spanish use rates of 80-90% among adult Hispanics. In contrast, the more restrictive "usual language" questions used in 1975 and 1976 result in Spanish use rates of 45-50% among adult Hispanics. Chapter II demonstrated that for both Spanish and a number of other frequently used languages other than English, the 1979-1980 question measures any significant level of using that language, but greatly overestimates the proportion of the population for whom their ethnic language is their dominant or most frequently used language. The nearly equal results obtained from the similarly worded English ability questions in 1976 and 1979 serve to confirm the conclusion that question wording largely explains the different language use results.

Second, the dichotomous and highly skewed language question in 1979-1980 is in itself of limited use in the analysis of language use and maintenance patterns. However, it can be combined with the English ability question to form a useful three or more category scale. In Chapter III we explored and assessed various alternatives before selecting a three-category scale as the most useful for cross-tabular analysis. This scale, which corresponds directly to levels of language maintenance as defined in the earlier studies, was then used in the balance of the paper.

Third, we carried out the three generational analysis, which demonstrated distinct shifts from first to second and from second to third generations. However, the use of Spanish among third (actually native of native) generation Hispanics turned out to be markedly higher than what is found among other contemporary or past twentieth century immigrant stocks. The first section of Chapter V showed that this retention is significantly greater among Mexican-Americans than among other Hispanics. The nature of the language questions being used makes it impossible to make any statements about the absolute rates of Spanish use, but the relative differences across generations and between Mexican-Americans and other Hispanics are clear.

Fourth, overall, and also within generational and ethnic subgroups, there are clear associations between using Spanish and low socioeconomic status, as measured by years of schooling, occupational prestige and the income of adult Hispanic males. The pattern persists whether or not mother tongue is taken into consideration. However, it is impossible to make clear imputations of causation with these data, particularly because they lack good indicators of socioeconomic background.

Finally, Multiple Discriminant Function Analysis (MDFA) allowed us to discern secondary as well as primary patterns in the relation between language and socioeconomic characteristics. The last part of Chapter V used MDFA and showed that while the general pattern associates using Spanish with low educational attainment, there is a secondary pattern in which educational attainment and maintaining Spanish while also gaining competence in English are all positively associated. That is, the high achieving bilingual does exist as a pattern, but it tends to be submerged in the broader association between low attainments and continuing to use Spanish. This pattern is clearer for other Hispanics than for Mexican-Americans.

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